

Hempadur Multi-Strength 45540

Product characteristics

Description

Hempadur Multi-Strength 45540 is a two component pure epoxy paint which cures to an abrasion and corrosion resistant coating. Applicable by standard heavy duty airless spray equipment. Well suited for application under humid conditions and for early water exposure.

Recommended use

As a maintenance and repair primer in Hempadur systems in severely corrosive environment. As a self-primed, high build coating primarily for maintenance of e.g. structural steel, tidal zones, jetty pillings and decks.

Service temperature:

- Maximum, dry exposure only: 140°C [284°F].
- Maximum, in water (no temperature gradient): 60°C [140°F].
- Maximum, in water (peak): 80°C [176°F].

Product safety

Flash point 26°C [79°F]

VOC content mixed product

Legislation	Value
EU	176 g/L [1.47 lb/US gal]
US (coatings)	176 g/L [1.47 lb/US gal]
US (regulatory)	176 g/L [1.47 lb/US gal]
China	176 g/L [1.47 lb/US gal]

According to specific legislation, see details in the Explanatory Notes available at Hempel website, hempel.com or at your local Hempel website. VOC values may vary with shade, please consult the Safety Data Sheet, section 9.

Handling

Handle with care. Before and during use, observe safety labels on packaging and paint containers and follow all local and national safety regulations. Always consult Hempel's Safety Data Sheet for this product along with the Product Data Sheet.

For professional use only.

Product data

Product code

45540

Product components

Base 45549
Curing Agent 97531

Standard shade* / code

Black 19990 **

Gloss

Glossy

Volume solids

84 ± 2%

Specific gravity

1.7 kg/L [14 lb/US gal]

Reference dry film thickness

350 micron [14 mils]

Surface preparation

Cleanliness

- Remove oil, grease and other contaminants by suitable detergent cleaning.
- Remove salts, detergents and other contaminants by high pressure fresh water cleaning.

New build:

- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SP 10 (SSPC).
- Remove dust, blast media and loose materials.

Maintenance and Repair

- Spot abrasive blasting to min. PSa 2 (ISO 8501-2) / SP 6 (SSPC).
- Minor areas can be cleaned by power tool to St 3 provided the surface is roughened and not polished.
- Water jetting to min. Wa 2 (ISO 8501-4).
- Flash rust degree of maximum FR M (ISO 8501-4).
- Remove dust, blast media and loose materials.

* Other shades are available, please contact your local Hempel representative.

** Colour stability may be affected by exposure to harsh chemical and/or high temperatures.

Hempadur Multi-Strength 45540

Roughness

- Surface profile Medium (G) (ISO 8503-2).

Consult Hempel's separate Surface Preparation Guidelines for more details.

Application

Mixing ratio

Base 45549 : Curing Agent 97531
(4 : 1 by volume)

Stir well before use.

Thinner

Hempel's Thinner 08450

Cleaner

Hempel's Tool Cleaner 99610

Pot life

Product temperature	20°C [68°F]
Pot life	90 min
Pot life (spray)	90 min
Pot life (brush)	2 hours

Application method

Tool	Thinning max vol.	Application parameters
Airless spray	5%	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.021-0.023"
Brush	5%	Not Applicable.
Roller	5%	Not Applicable.

If brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Film thickness

Specification range	Low	High	Recommended
Dry film thickness	125 micron [5.0 mils]	400 micron [16 mils]	350 micron [14 mils]
Wet film thickness	150 micron [6.0 mils]	500 micron [20 mils]	400 micron [16 mils]
Theoretical spreading rate	6.7 m ² /L [273 sq ft/US gal]	2.1 m ² /L [86 sq ft/US gal]	2.4 m ² /L [98 sq ft/US gal]

Product may be specified in another film thickness than indicated depending on purpose and area of use. This will alter spreading rate, drying and curing time and overcoating interval. For best performance, avoid excessive film thickness.

Application conditions

- Surface temperature must be above 5°C [41°F] during application and curing.
- Temperature of product must be above 15°C [59°F] during application.
- To avoid condensation, apply on a clean and dry surface with a temperature that is at least 3°C [5°F] above the dew point.
- To facilitate proper application properties at low temperatures it is recommended to allow the thoroughly mixed Base and Curing Agent to prereact before application.

Relative Humidity:

- Relative humidity must be below 80% during application.
- Relative humidity must be below 80% during curing.

Application remarks

- The product can be immersed 30 minutes after application at 20°C [68°F]. This may result in discolouration but will not affect anticorrosive performance.

Hempadur Multi-Strength 45540

Drying and overcoating

Product compatibility

- Previous coat: None or according to Hempel's specification. Recommended product is: Hempadur 15590
- Subsequent coat: According to Hempel's Specification.

Drying time

Surface temperature		20°C [68°F]
Touch dry	hours	3½
Hard dry	hours	6½

Determined for dry film thickness 350 micron [14 mils] at standard conditions, see Hempel's Explanatory Notes for details.

Overcoating

Hempel's specification supersedes any guidelines indicated in the overcoating table

Quality name		10°C [50°F]	20°C [68°F]	30°C [86°F]
		Atmospheric severe		
Hempadur Multi-Strength 45540	Min	36 h	16 h	11 h
	Max	11 d	5 d	3½ d
Immersion				
Hempadur Multi-Strength 45540	Min	36 h	16 h	11 h
	Max	11 d	5 d	3½ d

Consult Hempel's specification for more information.

Drying conditions

- To obtain the drying time stated, it is important to maintain sufficient ventilation during application, drying and curing.

Overcoating details

- If the maximum overcoating interval is exceeded, roughening of the surface is necessary to ensure intercoat adhesion.
- The surface must be clean before overcoating.

Other remarks

- Epoxy coats have an inherent tendency of chalking in outdoor exposure. This does not affect the performance of the coating.
- Hempel's Specification supersedes any recommendations given in the Product Data Sheets.

Storage

Shelf life

Ambient temperature	25°C [77°F]
Base	12 months
Curing Agent	36 months

Shelf life from date of production, when stored in original, unopened containers. Thereafter, the product quality must be re-inspected. Storage at elevated temperatures may reduce shelf life. For advice, please consult Hempel.

Carbon Footprint

Dry film thickness	1 µm	1 mil
GWP (Global Warming Potential)	7 g CO ₂ e/m ²	0.036 lb CO ₂ e/ft ²

The carbon footprint is for 1 square meter / square foot of surface area with a dry film thickness of 1 micron / mil.

The scope includes raw materials, in-bound transport to the Hempel factory, Hempel manufacturing processes, and any Volatile Organic Compounds emitted during and after the application of the product.

It is calculated based on the standard shade defined in this PDS. Values may vary with shade.

Hempadur Multi-Strength 45540

Additional documents

Additional information is available at the Hempel website <https://www.hempel.com/service-and-support/technical-guidelines> or at your local Hempel website:

- Explanatory Notes for Product Data Sheet.
- Application methods.
- General Application Guidelines

This Product Data Sheet ("PDS") relates to the supplied product ("Product") and is subject to updating from time-to-time. Accordingly, the buyer/applicator should have regard to the PDS supplied together with the relevant batch of the Product (and not an earlier version). In addition to the PDS, the buyer/applicator may receive some or all of the following specifications, statements and/or guidelines as listed below or as are available from the Hempel website under 'Products' at www.hempel.com (the "Additional documents"):

No.	Document description	Location/comments
1.	Technical Statement	One-off specific advice provided on request for specific projects
2.	Specification	Only issued for specific projects
3.	PDS	This document
4.	Explanatory Notes to the PDS	Available at www.hempel.com and contain relevant information about the Product testing parameters
5.	Application Instruction	Where available, at www.hempel.com
6.	Generic technical guidelines (e.g. on application and surface preparation)	Where available, at www.hempel.com

In the event of a conflict of information between the PDS and the Additional documents, the order of priority of information shall be in the order as set out above. In such event you should also contact your representative at Hempel for clarification. Furthermore, the buyer/applicator must have full regard to the relevant Safety Data Sheet provided with each Product and which can also be downloaded from www.hempel.com.

Hempel shall not be liable for defects where the application of the Product has not been made fully in accordance with the recommendations and requirements set out in the relevant PDS and the Additional Documents. The information and terms of this disclaimer apply to this PDS, the Additional documents and any other documents supplied by Hempel in respect of the Product. In addition, the Product is supplied and all technical assistance is given subject to Hempel's General Conditions of Sale, Delivery and Service, unless otherwise expressly agreed in writing.